

Commonwealth of Massachusetts Division of Fisheries & Wildlife Route 135 Westborough, MA 01581 (508) 792-7270 ext. 200

## MASSACHUSETTS ENDANGERED PLANTS

NORTHEASTERN BULRUSH

(Scirpus ancistrochaetus Schuyler)

## **Description**

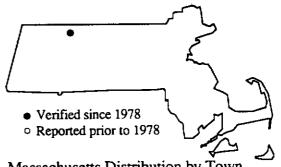
Northeastern Bulrush is a tall, leafy, grass-like perennial in the Sedge family (Cyperaceae). It grows from 80 to 120 cm (31 - 47 1/2 in.) tall. The lower leaves of Northeastern Bulrush are up to 8 mm (8/25 in.) wide, while the uppermost leaves are only 3-5 mm (3/25 - 5/25 in.) in width. Its flowering stems rise from short, woody rhizomes (horizontal, underground stems, which usually have roots at the nodes). The terminal inflorescence consists of several downward arching rays, at the end of which are the ovate,  $3-5 \text{ mm} (3/25 - 5/25 \text{ in.}) \text{ long, brown spikelets (un$ branched, elongate inflorescences of stalkless flowers). Each flower has six rigid bristles that are covered in sharp-pointed, downward-curving barbs. These barbs give Northeastern Bulrush the alternate common names of Fish-hook Bulrush and Barbedbristle Bulrush. Several long bracts (modified leaves



Crow, G.E. New England's Rare. Threatened, and Endangered Plants. U.S. Fish and Wildlife Service, 1982.



Documented Range of Northeastern Bulrush



Massachusetts Distribution by Town

associated with flowers or inflorescences) subtend the inflorescence. Northeastern Bulrush's fruits are 1.1-1.35 mm (about 1/25 in.) long, yellow-brown, generally obovate achenes (dry, one-seeded fruits). These achenes are distinctly thickened at their tops. Northeastern Bulrush was described for the first time as a new species in 1962 by Alfred E. Schuyler.

## Range

The current range of Northeastern Bulrush has been documented as a very few locations in Virginia, West Virginia, Maryland, Pennsylvania, Vermont and Massachusetts.

Similar Species

Dark Green Bulrush (Scirpus atrovirens) is quite similar to S. ancistrochaetus in appearance. However, Dark Green Bulrush's leaves are wider--up to 18 mm (18/25 in.) wide. Furthermore, its bristles are variable in number, less rigid and have round-topped barbs. Northeastern Bulrush is closely related to both Dark Green Bulrush and Leafy-green Bulrush (Scirpus hattorianus) and may produce sterile hybrids, intermediate in morphology, with either.

## Habitat in Massachusetts

In general, Northeastern Bulrush grows on the unshaded water's edge of the emergent zone of wet depressions, bogs, marshes, shallow sinkholes, and acidic to circumneutral ponds. These wet areas have seasonally variable water levels and are located, for the most part, in low areas of hilly country. The one current habitat in Massachusetts is a depression in a sandplain near a pond. Associated species at this site include Wool Grass (Scirpus cyperinus) and the common bulrush Scirpus atrocinctus.

Population Status

Northeastern Bulrush is a federally listed endangered species. It is also presently listed as "Endangered" in Massachusetts, where there is only one current station (relocated in 1989); Northeastern Bulrush was first collected at this site in 1928. Other populations have not yet been found despite searching in suitable wetland habitats, and no other historical stations exist. Nevertheless, this species is likely to be discovered elsewhere in Massachusetts. Northeastern Bulrush also has endangered status in Pennsylvania, Maryland and Virginia. It is listed as "Threatened" in Vermont and was present historically in New York. Nationwide there are 13 current and nine locales where it was once known. Of the current populations, six have fewer than 25 individuals. The major threat to the species is habitat destruction or modification through development. Off-road vehicles and water pollution may also pose threats.